

4355D(DIV)

-2-

SN 09/760,065

- C2
- 49. The device of claim 26 wherein the mixture is present in the form of tablets.--
- 50. The device of claim 26 wherein the mixture is present in the form of powders.--
- 51. The device of claim 26 wherein the mixture is present in the form of granules.--
- 52. The device of claim 26 wherein the mixture is present in the form of pellets.--
- 53. The device of claim 26 wherein the mixture is present in the form of agglomerates.--
- 54. The device of claim 53 wherein the agglomerates are present as two types:
- (a) a first type comprising at least one metal chlorite or a mixture of one or more metal chlorites and one or more non-acid forming additives; and
  - (b) a second type comprising at least one acid forming component or a mixture of one or more acid forming components and one or more metal chlorite-free additives.

### REMARKS

The claims stand rejected under 35 U.S.C. § 112, first paragraph, for the reasons set forth on pages 2-3 of the instant Office Action. In response to such rejection, independent claim 26 has been extensively amended and conforming amendments have been made to dependent claims 49-54. It is respectfully submitted that such amendments obviate this rejection.

Claims 26, 28-34, 39-40 and 48 stand rejected under 35 U.S.C. § 102(a) as being anticipated by CN 1,104,610 as abstracted in English in Derwent Abstract 1997-311,227 (hereinafter referred to as "CN '610"). Claims 49-59 stand rejected under 35 U.S.C. § 103(a) as being unpatentable on the ground of obviousness over the CN '610 reference. For the sake of brevity, the remarks set forth below will deal with both rejections as a single rejection on the basis of the CN '610 reference.

4355D(DIV)

-3-

SN 09/760,065

The disclosure in CN '610 cannot be seen to anticipate or render obvious the rejected claims. Firstly, it cannot be seen how a cloth bag would be deemed to be the equivalent of a water permeable membrane. The concept of water permeability as applied to a cloth bag would make absolutely no sense. A cloth bag would allow the free, unhindered passage of water therein and the unhindered passage of chlorine dioxide therefrom in contradistinction to a water permeable membrane which would allow the chlorine dioxide to be generated and released to the environment in a controlled manner.

Moreover, the disclosure in CN '610 indicates that the sodium chlorite exists in the form of microcapsules to which a beeswax, stearic acid or paraffin has been added, presumably thereby coating the microcapsules. In contradistinction thereto, the device of the present invention does not require the presence of any particular form of the chlorite nor any additional coating thereon. It would be quite difficult, if not impossible, to regulate the generation and release of chlorine dioxide in CN '610 since it would require painstaking adjustments in the size of the microcapsules and the degree of coverage and the thickness of the coating. In the instant invention, the rate of generation and release of the chlorine dioxide is readily adjusted as desired by selecting a membrane with the desired degree of water permeability.

It appears that all of the claims as amended are patentable over the cited prior art. Accordingly, reexamination and allowance of the claims is respectfully solicited.

Respectfully submitted,



Jack Matalon  
Attorney for Applicants  
Reg. No. 22, 441

Engelhard Corporation  
Patent Department  
101 Wood Avenue - P.O. Box 770  
Iselin, NJ 08830-0770

Tel: (732) 205-5181

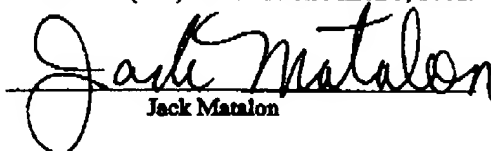
4355D(DIV)

-4-

SN 09/760,065

**CERTIFICATE OF FACSIMILE TRANSMISSION UNDER 37 C.F.R. § 1.8**

It is hereby certified that this Response, including the attachment hereto, was transmitted to the U.S. Patent & Trademark Office by facsimile transmission to (703) 872-9310 on March 5, 2002.



Jack Matalon

4355D(DIV)

-5-

SN 09/760,065

**ATTACHMENT****Markup Copy of Claims as Amended**

26. (Once Amended) A device for producing an aqueous solution of chlorine dioxide comprising a water-permeable membrane defining at least in part [, a first zone and a second zone, said first zone containing liquid water and said second zone] an enclosed space containing a mixture of at least one metal chlorite and at least one acid forming component, said acid forming component being selected from the group consisting of water soluble acids, water soluble acid salts, synthetic molecular sieves, acid ion exchange resins, acid treated clays and acid treated calcined clays, and wherein said [at least] metal chlorite and said [at least one] acid forming component [in said mixture] are such that they will react with each other in the presence of water but not in the substantial absence of water to produce chlorine dioxide, said membrane being [made] comprised of a material which permits: (a) liquid water and/or water vapor to pass [therethrough] through the membrane into the [second zone] enclosed space to thereby allow the [mixture of the at least one] metal chlorite and [at least] the acid forming component to react to produce chlorine dioxide and (b) the so produced chlorine dioxide to pass [therethrough] through the membrane into [the] a body of liquid water [in the first zone] to produce the aqueous solution of chlorine dioxide.

49. (Once Amended) The device of claim 26 wherein the mixture is present [in the second zone] in the form of tablets.

50. (Once Amended) The device of claim 26 wherein the mixture is present [in the second zone] in the form of powders.

51. (Once Amended) The device of claim 26 wherein the mixture is present [in the second zone] in the form of granules.

4355D(DIV)

-6-

SN 09/760,065

52. (Once Amended) The device of claim 26 wherein the mixture is present [in the second zone] in the form of pellets.

53. (Once Amended) The device of claim 26 wherein the mixture is present [in the second zone] in the form of agglomerates.

54. The device of claim 53 wherein the agglomerates are present [in the second zone] as two types:

- (a) a first type comprising at least one metal chlorite or a mixture of one or more metal chlorites and one or more non-acid forming additives; and
- (b) a second type comprising at least one acid forming component or a mixture of one or more acid forming components and one or more metal chlorite-free additives.